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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,788	11/14/2001	Bruce M. Russell	IR 6555-00	5839
23909	7590	08/22/2005	EXAMINER	
COLGATE-PALMOLIVE COMPANY			BALSIS, SHAY L	
909 RIVER ROAD			ART UNIT	
PISCATAWAY, NJ 08855			PAPER NUMBER	
			1744	
DATE MAILED: 08/22/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,788

Applicant(s)

RUSSELL ET AL.

Examiner

Shay L. Balsis

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 9-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kramer (USPN 6066282).

Kramer teaches a toothbrush manufactured from two preformed components (1, 7), which are welded together to form a toothbrush (col. 2, lines 58-68). The preformed components are a neck and a handle. An elastomeric material to form a gripping means surrounds the handle. Kramer teaches molding the head and then injecting a second material into a mold to create the handle. If the second material is injected at a lower temperature than the melting point of the head material than the head and handle may be free to rotate about the ball and socket joint between the head and the handle formed (col. 5, lines 39-44). Once the head and handle are both formed and semi-connected, the preformed components are transferred to the cavity of a further molding tool wherein an elastomeric material is injected around the joint of the head and handle. This causes the elastomeric material to fuse the plastic material of the head and plastic material of the handle (col. 5, lines 45-55).

The limitation in claim 1 which states that the components are welded together by heating each respective component with hot air is a product-by-process claim. Product-by-process claims are not limited to the manipulations of the recited step, only the structure implied by the steps. Even though product-by-process claims are limited by and defined by the process, determination of the patentability is based on the product itself. The patentability of a product does not depend on the

Art Unit: 1744

method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*. 227 USPQ 964, 966.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brice (USPN 5499421).

Brice teaches a toothbrush manufactured from three preformed components (5, 6, 4a), which are welded together to form a toothbrush (col. 7, lines 1-21). The preformed components are a neck and a two brush heads. Brice teaches that the "heads may flex in any single direction or combination of different directions... The degree of flexure of each neck portion segment can be easily controlled by for example, increasing or decreasing the length of the neck portion... or using different material" (col. 9, lines 51-59). Brice therefore, teaches that the since the components may be made using different material, it is clear that the components would have a different melt flow rate from each other.

Brice discloses the claimed invention except for making one of the components from an elastomeric material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make one of the components from an elastomer, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Art Unit: 1744

Additionally, an elastomeric material would assist the flexibility of the toothbrush with the forces incurred when brushing.

The limitation in claim 1 which states that the components are welded together by heating each respective component with hot air is a product-by-process claim. Product-by-process claims are not limited to the manipulations of the recited step, only the structure implied by the steps. Even though product-by-process claims are limited by and defined by the process, determination of the patentability is based on the product itself. The patentability of a product does not depend on the method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brice in view of Gartland et al. (USPN 6682620).

Brice teaches all the essential elements of the claimed invention, including that the handles, neck and heads are made from conventional polymers, however fails to teach a specific break strength of the weld. Gartland teaches a method of welding thermoset plastic monofilament fabric to provide a continuous method of treating the monofilament fabric. Gartland teaches that the thermoset plastic monofilament fabric have a weld strength of 465 lbs/in (col. 8, lines 45-50). Since Gartland is welding plastic monofilament fibers together and creating a strong weld strength, it would have been obvious to one of ordinary skill in the art at the time the invention was made that break strength of Brice's weld is at least at least 465 lbs/in, if not stronger since Brice is welding solid plastic/elastomeric components instead of fibers.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer in view of Gartland et al. (USPN 6682620).

Art Unit: 1744

Kramer teaches all the essential elements of the claimed invention however fails to teach a specific break strength of the weld. Gartland teaches a method of welding thermoset plastic monofilament fabric to provide a continuous method of treating the monofilament fabric. Gartland teaches that the thermoset plastic monofilament fabric have a weld strength of 465 lbs/in (col. 8, lines 45-50). Since Gartland is welding plastic monofilament fibers together and creating a strong weld strength, it would have been obvious to one of ordinary skill in the art at the time the invention was made that break strength of Kramer's weld is at least at least 465 lbs/in, if not stronger since Kramer is using solid plastic/elastic components instead of fibers.

The indicated allowability of claims 9-10 is withdrawn in view of the newly formed rejection with reference to Brice in view of Dow.com. Rejections based on the new combination of references as are follows:

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brice (USPN 5499421) in view of Dow.com.

Brice teaches all the essential elements of the claimed invention as stated above however fails to teach that the components made with different materials have melt flow rates which differ by more than 5g/10min. Brice teaches using conventional polymers to form the toothbrush components. Dow.com teaches many conventional polymers such as polypropylene which all have various melt flow rates.

Therefore, since the Applicant does not state what materials are used, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make one of the components from polypropylene (C702-20) with a melt flow rate of 18.0g/10min and another component from polypropylene (C700-35) with a melt flow rate of 35.0g/10min since it has been held within the general skill of a worker in the art to select a known material on the basis of its

Art Unit: 1744

suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Additionally, because the Applicant has not disclosed that the materials used for the components provides an advantage, is used for a particular purpose, or solves a stated problem, one of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any of the polypropylene material as discloses on Dow.com because a majority of them all have melt flow rates which differ by more than 5g/10min.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb
8/15/05



MARK SPISICH
PRIMARY EXAMINER
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Application/Control Number: 09/992,788

Page 7

Art Unit: 1744